

3 DESCRIPTION OF THE PROPOSED PROJECT

3.1 PROJECT OVERVIEW

3.1.1 PROJECT BACKGROUND AND PURPOSE

The California Department of Parks and Recreation (State Parks), with planning assistance from the Nature Conservancy (TNC), is proposing to implement a habitat restoration and outdoor recreation facility development project on two parcels known as the Singh Unit and Nicolaus property (collectively known as the project site) along the Sacramento River within and adjacent to Bidwell-Sacramento River State Park (BSRSP or Park), west of the City of Chico in Butte County, California (Exhibit 3-1). The Singh Unit is owned by State Parks and located within BSRSP. The Nicolaus property is currently owned by TNC, but would be transferred to State Parks, as part of the proposed project, prior to implementation of habitat restoration activities and recreation facilities development. It's located immediately adjacent to the Indian Fisheries subunit of BSRSP. Both the Singh Unit and Nicolaus property are currently in agricultural production (walnut and/or almond orchards).

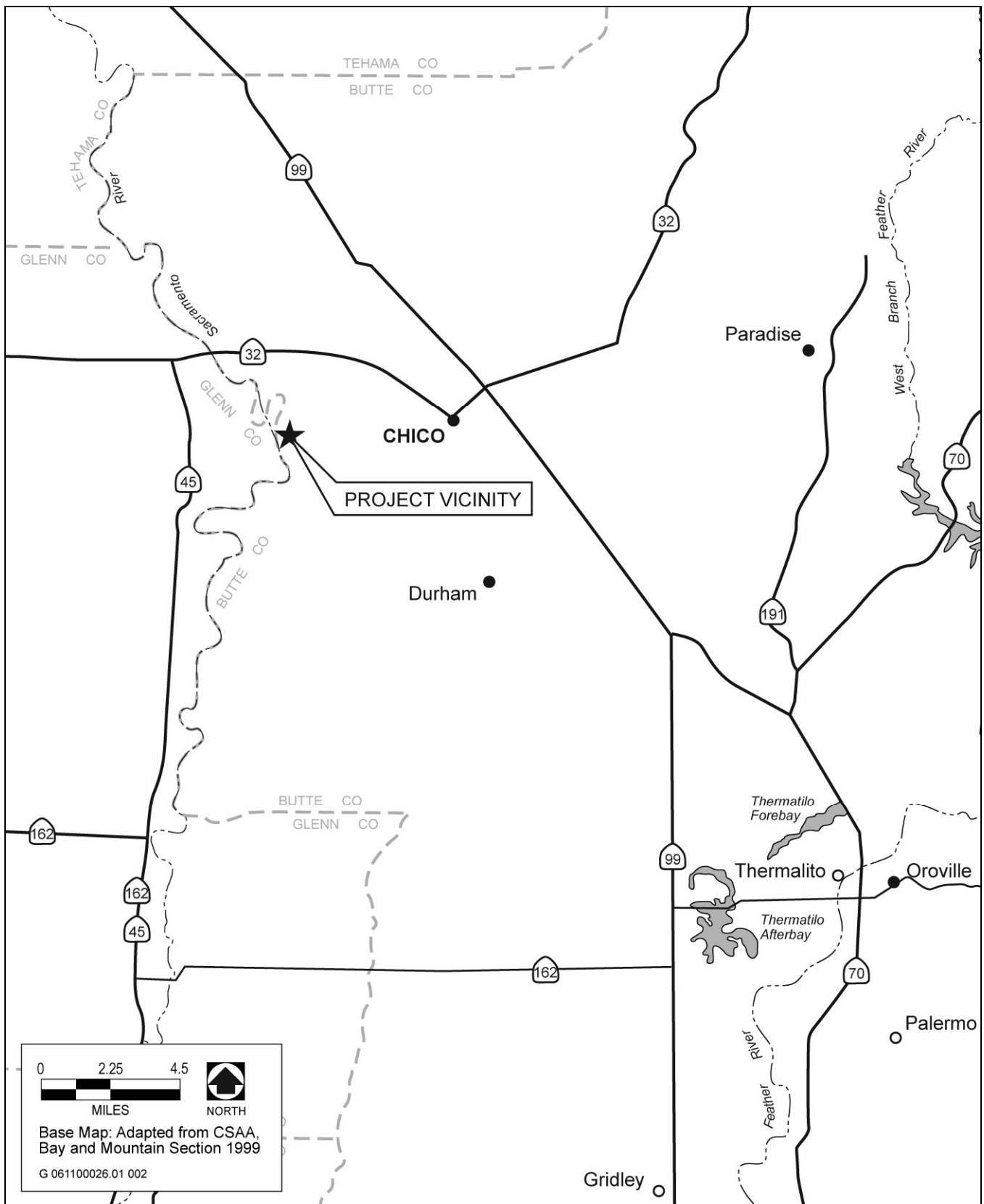
The Singh Unit and Nicolaus property present a unique opportunity for habitat restoration because they are located at the confluence of the Sacramento River, Big Chico Creek, and Mud Creek (Exhibit 3-2). The protection and restoration of habitat on these two parcels would aid in the recovery of special-status species, rehabilitate natural river processes, protect and restore riparian habitat, and improve water quality. The primary terrestrial and avian wildlife special-status species that would benefit from restoration of the project site include western yellow-billed cuckoo, Swainson's hawk, Cooper's hawk, and valley elderberry longhorn beetle. Several special-status fish species, including Chinook salmon, green sturgeon, and steelhead trout, would also benefit. The proposed project would add approximately 150 acres of restored riparian habitat to the existing 2,887 acres of protected and restored habitat along the Sacramento River between river mile (RM) 199 and RM 193.

The project would include the transfer of ownership of the Nicolaus property from TNC to State Parks. The property would become part of BSRSP prior to implementation of habitat restoration activities or outdoor recreation facilities development. The inclusion of the Nicolaus property within BSRSP, and restoration of the Nicolaus property and the Singh Unit, would present an opportunity to enhance and expand the Park's recreational and public access opportunities through new and expanded trails, new day and overnight facilities, and visitor-service enhancement. It would also enable more efficient siting of Park headquarters facilities. Therefore, in conjunction with restoration activities, the proposed project includes creation and expansion of public outdoor recreation facilities. New trails would be created on both properties that would be aligned to connect with existing and proposed trails and facilities within the Park; new day-use and overnight camping facilities would be constructed; and the Park headquarters would be relocated to the existing farm buildings on the Nicolaus property, which is on higher, less frequently flooded ground compared to the current headquarters location. By expanding outdoor recreation facilities and restoring habitat at BSRSP, this project would increase public accessibility and opportunities to the middle reaches of the Sacramento River, while providing more habitat for riparian and river-dependent wildlife and plant species.

3.1.2 PROJECT OBJECTIVES

HABITAT RESTORATION

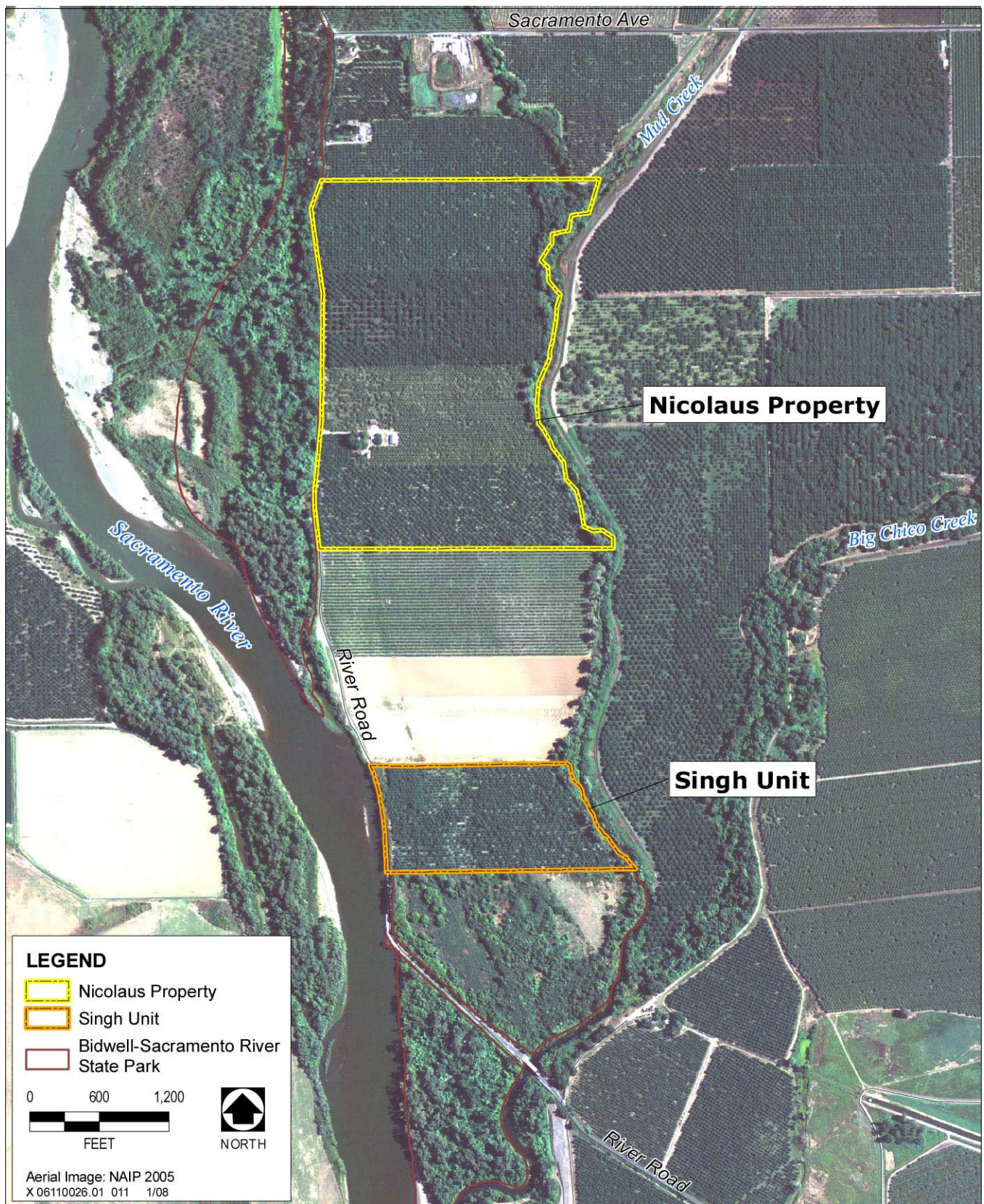
The first project objective is to restore natural topography and vegetation on the Singh Unit and Nicolaus property. This includes the removal of two human made berms on the Singh Unit; the removal of non-native vegetation, including eucalyptus on the Singh Unit adjacent to River Road; and, restoration of the following natural communities on both parcels: cottonwood riparian forest, valley oak savannah, valley oak forest, mixed riparian forest, native grassland, and valley oak riparian forest. The restoration activities proposed for this project have four central objectives, which are aligned with the California Bay-Delta Authority's Ecosystem Restoration Program (ERP) Goals:



Source: Data compiled by EDAW 2007

Project Vicinity Map

Exhibit 3-1



Aerial Photograph of the Project Site

Exhibit 3-2

1. Improve the ecological health and long-term viability of at-risk species and communities at a critical confluence area by protecting and restoring riparian habitat and rehabilitating floodplain processes through horticultural and process-based restoration (ERP Goal 1).
2. Increase knowledge of ecosystem function and employ adaptive management to improve the ability to engineer “desired future conditions” for riparian restoration projects that focus on lowland tributary confluence areas (ERP Goal 2).
3. Reduce flood damage to important human infrastructure by increasing the storage of floodwaters in the project area (ERP Goal 4).
4. Improve water quality to benefit humans and wildlife through the restoration of riparian vegetation communities, and geomorphic and hydrologic processes (ERP Goal 6).

OUTDOOR RECREATION FACILITIES DEVELOPMENT

The second project objective is to increase public access and outdoor recreation opportunities at BSRSP. The outdoor recreation facilities development component of this project has four key objectives:

- ▶ Develop potential new outdoor recreational use opportunities (day-use and overnight camping).
- ▶ Relocate the BSRSP headquarters and maintenance area to the existing Nicolaus property farm buildings and surrounding site where frequency of flooding is decreased.
- ▶ Convert the abandoned BSRSP headquarters and maintenance area to a trailhead with parking, picnic facilities, restrooms and interpretive signs.
- ▶ Install trails that connect to existing and proposed trails in the BSRSP’s Indian Fisheries Subunit, Big Chico Creek Riparian Area Subunit, and the Department of Fish and Game’s (DFG) Pine Creek Unit at Allinger Ranch.

3.1.3 INNER RIVER ZONE OF THE MIDDLE SACRAMENTO RIVER

The Singh Unit and Nicolaus property are located within the inner river zone of the Sacramento River Conservation Area¹ (SRCA), on lands identified by the U.S. Fish and Wildlife Service (USFWS) in the *Final Environmental Assessment for Proposed Restoration Activities on the Sacramento River National Wildlife Refuge* (USFWS 2002) as having high potential for restoration of native riparian habitat that would benefit fish, wildlife and plant species dependent on a naturally functioning riverine ecosystem. The inner river zone stretches from Red Bluff to Colusa and is defined as the 150-year meander zone of the Sacramento River, or the location in which the river has meandered within the last 100 years and is predicted to meander over the next 50 years. Most of the properties within this zone also lie within the 2 ½ to 4-year flood recurrence interval zone of the river, which means that they have a 40 to 25 percent chance of flooding each year, generally in winter or spring (based on aerial photograph-interpreted flood recurrence intervals generated by the California Department of Water Resources [DWR]). The inner river zone guideline defines, for the most part, the SRCA planning boundary used by state and federal agencies, and private entities to restore and enhance natural riparian habitats and functions along the Sacramento River (SRCA Forum 2003). The suitable hydrology, soils, and presence of protected native riparian habitat within the inner river zone contribute to the suitability of the proposed project site for restoration of riparian habitat that was historically extensive along the middle Sacramento River.

¹ The Sacramento River Conservation Area is defined as the 213,000 acre area along the banks of the Sacramento River between Keswick Dam and Verona where there is the potential for riparian habitat or valley oak woodland through voluntary participation.

3.1.4 IMPORTANCE OF RIPARIAN HABITAT

Over 225 species of birds, mammals, reptiles, and amphibians in California depend on riparian habitats for nesting, foraging, dispersal corridors, and migration stop-over sites. Riparian vegetation supplies instream habitat important for fish, semi-aquatic reptiles and amphibians, and aquatic insects (Riparian Habitat Joint Venture 2004). It is also critical to the quality of instream habitat and aquatic life, providing shade, food, and nutrients that form the basis of the food chain (Jensen et al. 1993, cited in RHJV 2004). Riparian habitats may be the most important habitat for land bird species in California (Manley and Davidson 1993, cited in RHJV 2004). Despite their importance, riparian habitats have been decimated over the past 150 years as a consequence of reservoir construction, levee and channelization projects, livestock grazing, timber harvest, water pollution, introduction of nonnative plant species, gravel and gold mining, and clearing for agricultural, residential, and industrial uses (Knopf et al. 1998, cited in RHJV 2004). Today, depending on the bioregion, riparian habitat covers 2% to 15% of its historic range in California (Katibah 1984 and Dawdy 1989, cited in RHJV 2004).

3.2 PROPOSED PROJECT PARCELS AND LOCATIONS

The project site includes the Singh Unit and Nicolaus property. These two non-contiguous parcels are depicted on the USGS Ord Ferry, California USGS 7.5 minute topographic map, within unsurveyed portions of Township 22 North, Range 1 West (Exhibit 3-3). The project site, located along the east bank of the Sacramento River, is adjacent to Mud Creek just upstream of the confluences of Big Chico Creek and Mud Creek and of Big Chico Creek and the Sacramento River. Because the Singh Unit and Nicolaus property are or would become part of BSRSP, respectively, and because potential future public access and recreation elements would be designed to connect to other Park subunits, a summary description of the Park is also provided below.

3.2.1 SINGH UNIT

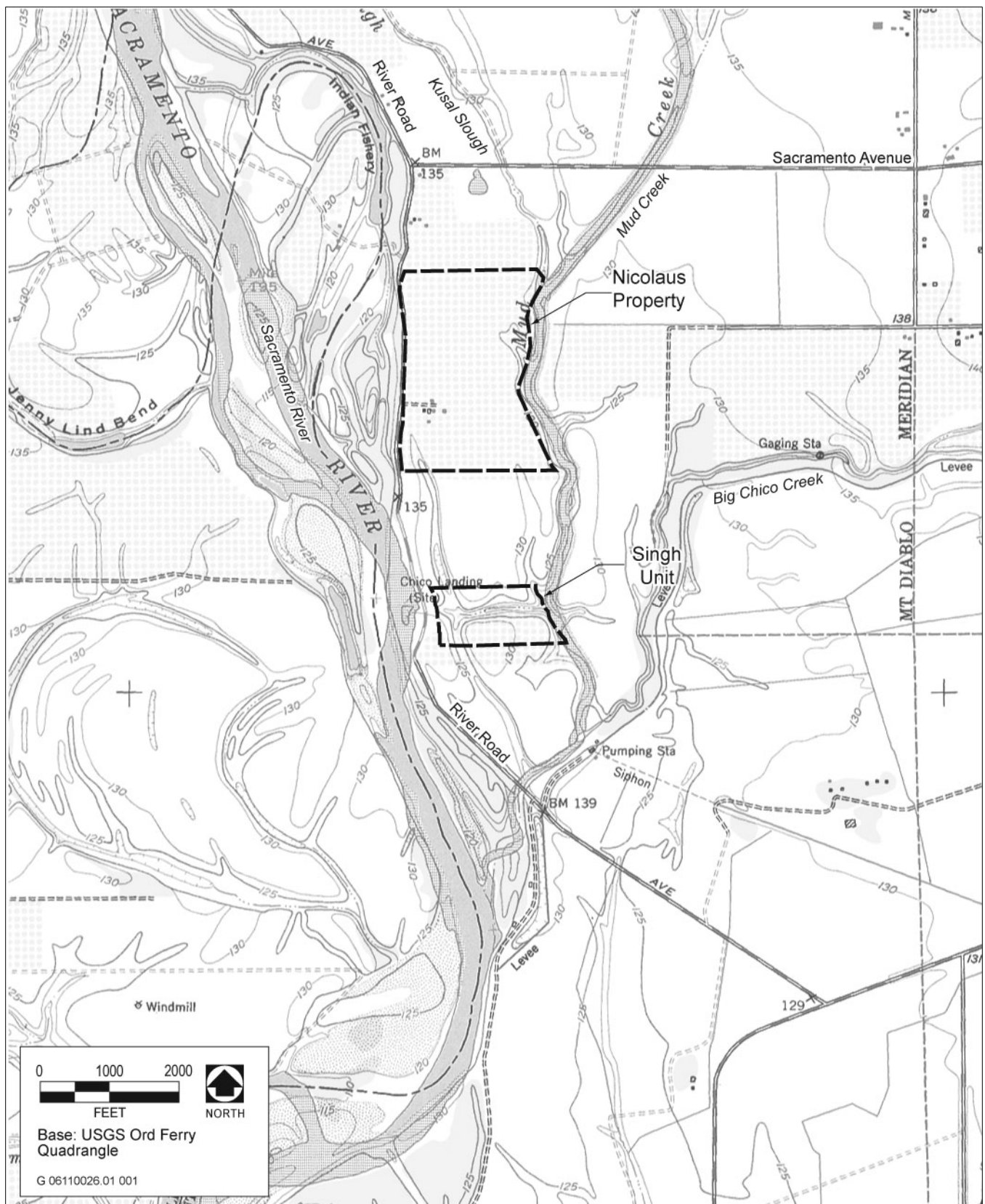
This approximately 43-acre parcel is a recent addition to the Big Chico Creek Riparian subunit of the BSRSP. The parcel is located along the east bank of the Sacramento River at river mile 194 and bordered on the north by privately owned agricultural land, on the west by River Road, on the east by Mud Creek, and on the south by the Big Chico Creek Riparian Area subunit of BSRSP. The parcel is approximately one-half mile north of the confluence of Big Chico Creek and the Sacramento River and is located in the 1- to 2½-year estimated flood recurrence interval. The unit has historic channel topography and existing shaded riverine aquatic habitat along Mud Creek. Berms constructed from sediment deposited from floods and scraped from the orchard surface are present on the eastern boundary and the southwest corner of the parcel. Approximately 34 acres of the unit are planted in walnuts, ranging in age from one-year replants to ten-year old trees. There is a row of non-native eucalyptus trees located along River Road, within the right of way of Butte County, just outside the west boundary of the parcel.

3.2.2 NICOLAUS PROPERTY

This approximately 146-acre parcel is adjacent to BSRSP, located along the east bank of the Sacramento River at river mile 195. It is immediately east of River Road and approximately two miles north of the confluence of Big Chico Creek and the Sacramento River and is located in the 1- to 2½-year estimated flood recurrence interval. The parcel is bordered by River Road on the west, Mud Creek on the east, and privately owned agricultural land to the south and to the north. The parcel has historic channel topography and existing shaded riverine aquatic habitat along Mud Creek. Approximately 104 acres of the parcel are planted in walnuts, ranging in age from 6-year old trees to 11-year old trees. The parcel also contains a 32-acre almond orchard, planted approximately 10 years ago. The parcel includes an agricultural building complex consisting of a residence, two sheds, and a barn. The complex also includes a 200-gallon diesel fuel tank that would be removed as part of this project.

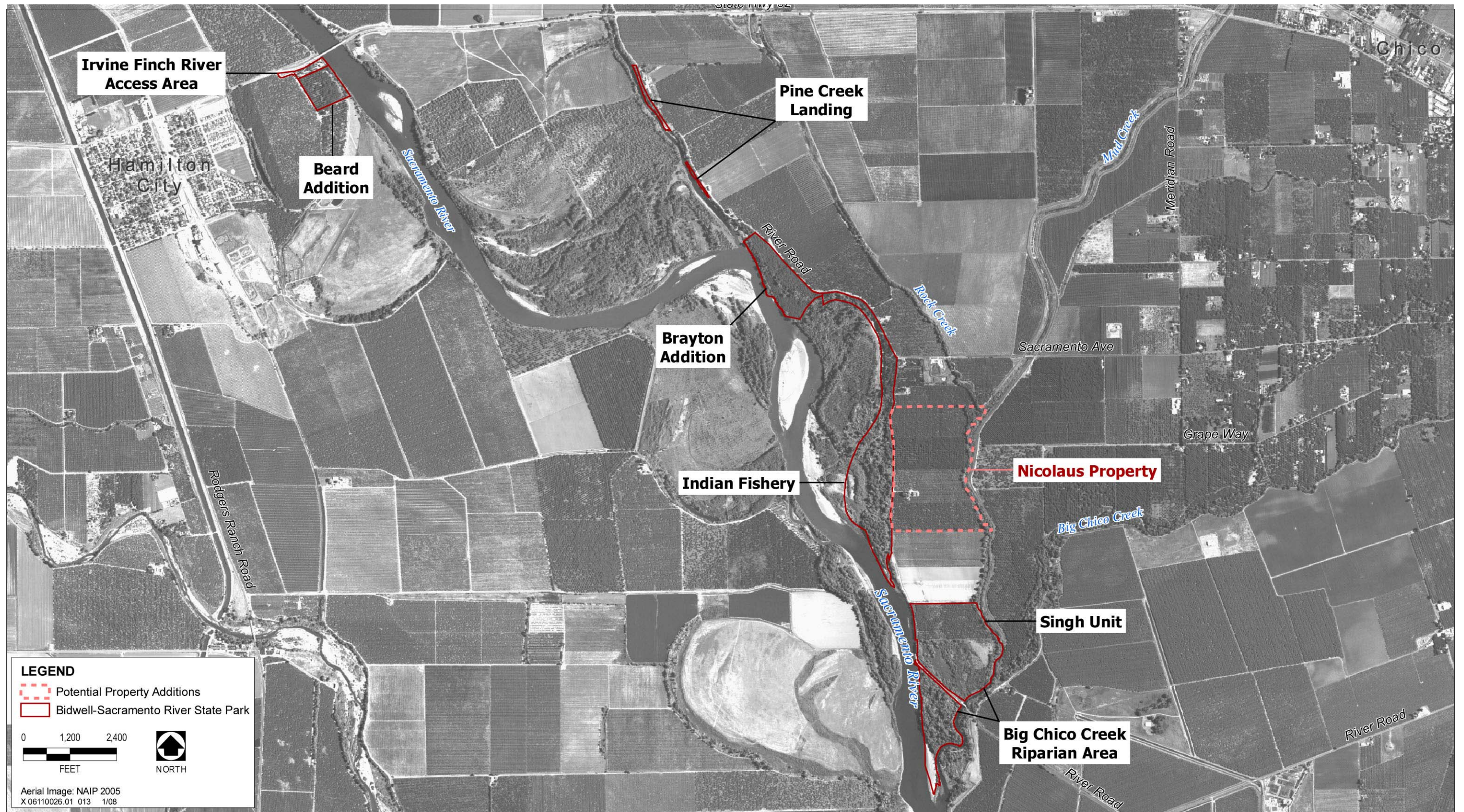
3.2.3 BIDWELL-SACRAMENTO RIVER STATE PARK

The Park consists of four non-contiguous subunits totaling approximately 315 acres that straddle the Sacramento River between State Route 32 (SR 32) and the mouth of Big Chico Creek (Exhibit 3-4). The Irvine Finch River



USGS 7.5 Minute Topographic Map of Project Site

Exhibit 3-3



BSRSP Subunits

Exhibit 3-4

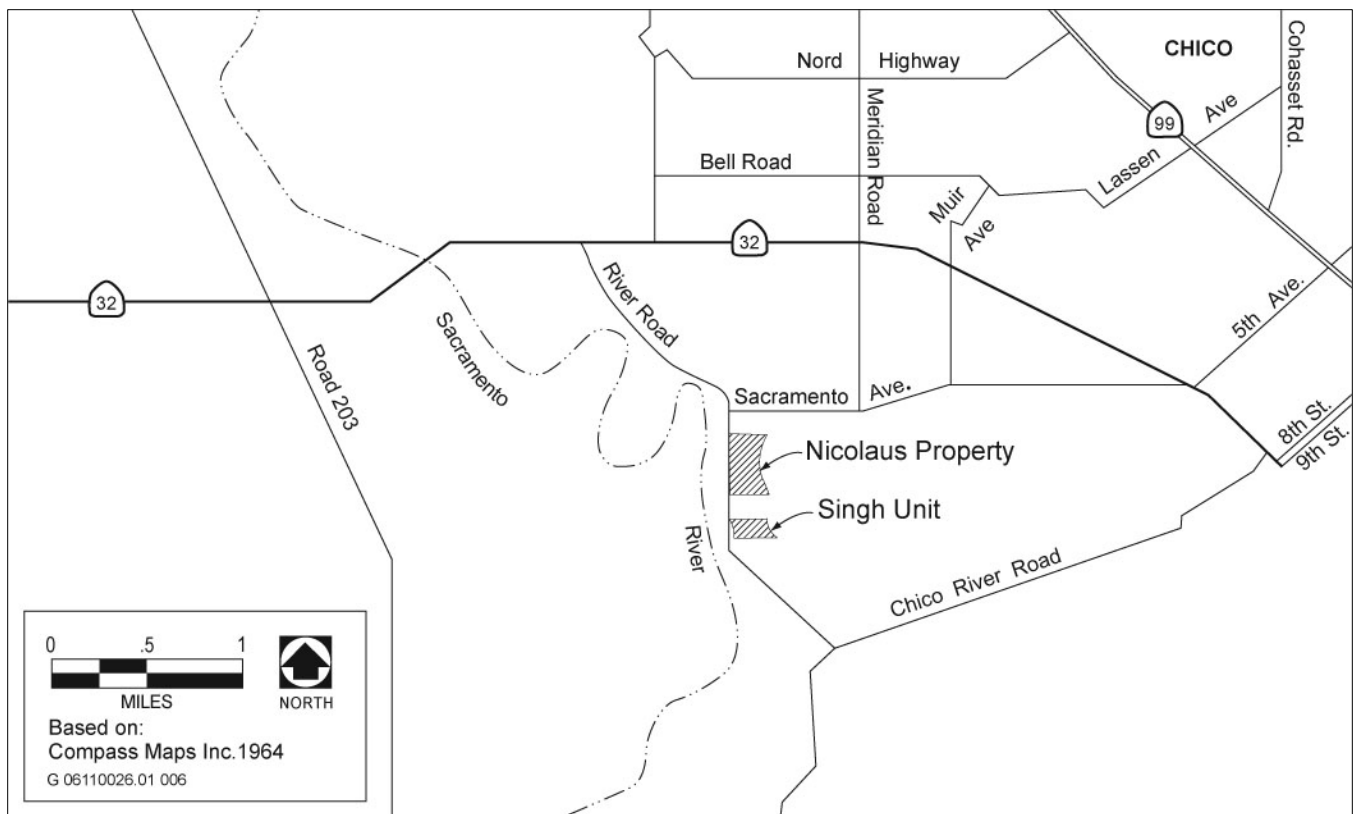
Access area is located on the west side of the river in Glenn County, while the Pine Creek Landing, Indian Fishery, and Big Chico Creek Riparian Area subunits are situated east of the River in Butte County. Each subunit is characterized by unique land use environments, as described in Table 3-1. The Big Chico Creek Riparian Area includes and is located directly south of the Singh Unit, and the Indian Fishery subunit is located directly west of the Nicolaus property.

Table 3-1 BSRSP Land Uses		
Subunit	Size (acres)	Existing Land Use & Activities
Irvine Finch River Access (including the Beard Addition)	25.2	<ul style="list-style-type: none"> ▶ Developed recreation (boat launch that facilitates motor-boating, kayaking, canoeing, tubing, and fishing; picnicking; and en-route camping)
Pine Creek Landing	4.8	<ul style="list-style-type: none"> ▶ Developed recreation (boat launch that facilitates motor-boating, kayaking, canoeing and fishing, and picnicking); ▶ Dispersed recreation (nature viewing); ▶ Interpretation (interpretive panel)
Indian Fishery (including Brayton Addition)	145.7	<ul style="list-style-type: none"> ▶ Developed recreation (picnicking); ▶ Dispersed recreation (trail use, nature viewing, hiking, and bank fishing); ▶ Interpretation and education (trail with interpretive/educational stations, local school group visits) ▶ Park administration
Big Chico Creek Riparian Area (including the Singh Unit)	139.7	<ul style="list-style-type: none"> ▶ Developed recreation (small boat launch that facilitates kayaking, canoeing and fishing, and picnicking); ▶ Dispersed recreation (bank fishing, trail use, nature viewing, and sunbathing); ▶ Conservation/restoration ▶ Walnut orchard
Total	315.4	--
	acres	
Source: California Department of Parks and Recreation (State Parks) 2003, EDAW 2008, EDAW 2007		

The Park is characterized by lush valley oak riparian woodland and other riparian communities, including unique ecological associations. The Park's various communities provide habitat to several special-status species, including western yellow-billed cuckoo, Swainson's hawk, and valley elderberry longhorn beetle, Chinook salmon, green sturgeon, and steelhead trout. In addition to its natural resources, the Park provides opportunities for river-oriented recreation. Recreational opportunities range from nature study, walking, fishing, picnicking, camping, and biking to paddling, floating, and motorized boating along the Sacramento River and its tributaries.

3.2.4 PROJECT SITE ACCESS

Access to the Singh Unit and Nicolaus property is provided by River Road, a two-lane rural road, maintained by Butte County, which runs in a north-south alignment along properties located on the eastern banks of the Sacramento River and its tributaries. West Sacramento Avenue, a two-lane rural road maintained by Butte County, intersects with River Road, thereby linking the downtown Chico area to the Singh Unit, Nicolaus property, and BSRSP. In addition, Chico River Road, a two-lane rural road maintained by Butte County, does not provide direct access to the project site, but is one of the primary roadways that provide access to River Road from Chico (Exhibit 3-5).



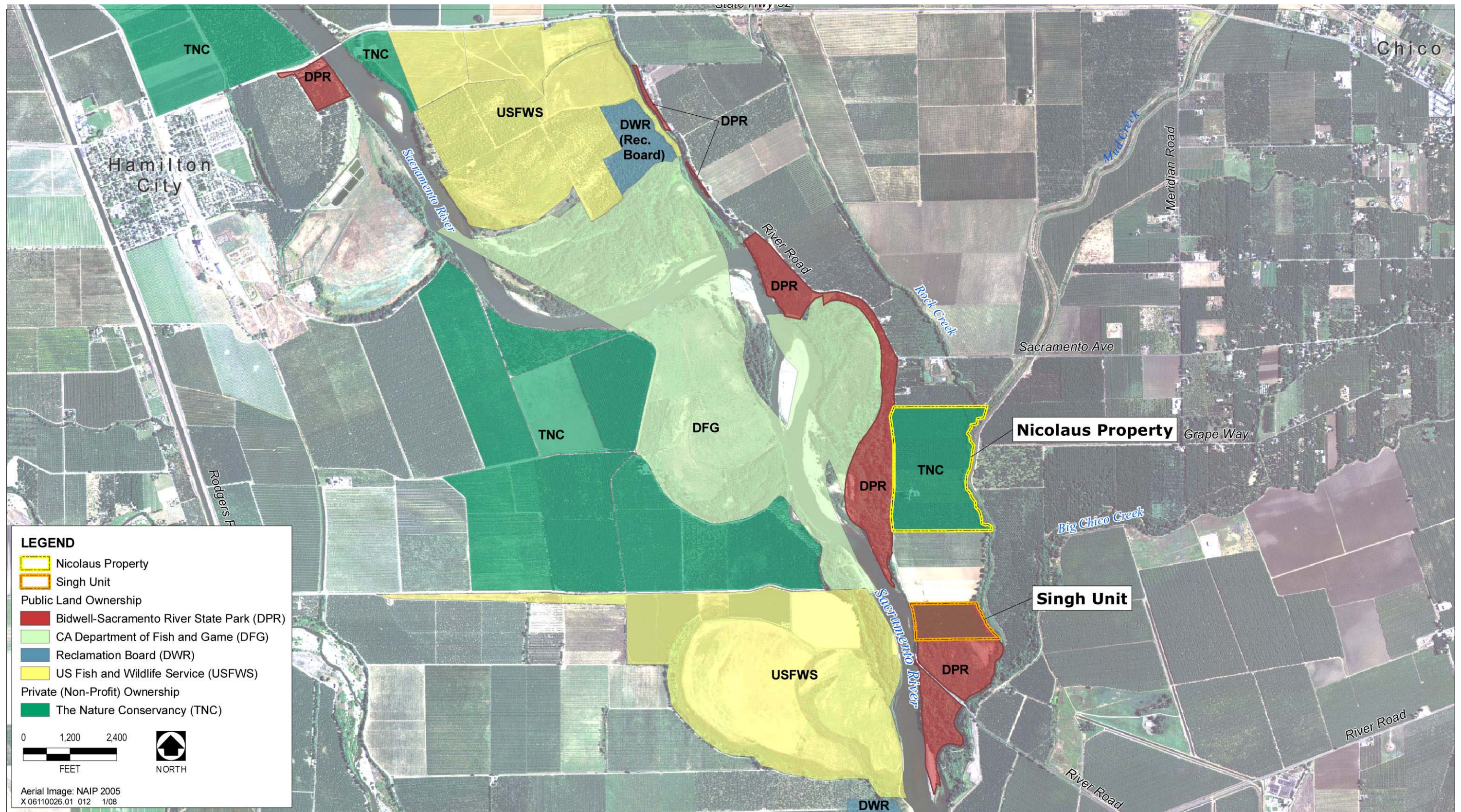
Project Site Access Map

Exhibit 3-5

3.3 RELATED PLANNING AND MANAGEMENT EFFORTS, RELATED PROJECTS, AND CONFORMANCE WITH EXISTING PROGRAMS

Ecosystems of the Sacramento River have been the subject of study and investigation for over 20 years as scientists, resource agency representatives, and elected officials have considered methods for the protection of riverine resources that also incorporate plans related to flood damage reduction, recreation, and agricultural uses. Complex planning and funding efforts by various agencies and other groups have contributed to the gradual implementation of projects to conserve and restore riparian habitat along the middle Sacramento River system between Red Bluff and Colusa.

The middle Sacramento River is subject to complex public and private ownership patterns, and consequently, diverse planning and management systems. Exhibit 3-6 shows public and non-profit land ownership in the project area. Public landowners in the vicinity of the project include State Parks, DFG, USFWS, and the Reclamation Board. Other properties are held by TNC, a non-profit organization that purchases and transfers properties into public ownership once they have been restored to natural conditions. Private lands along the middle Sacramento River are primarily used for agriculture, including orchards, row crops, and pasture.



Public and Non-profit Land Ownership in the Project Area

Exhibit 3-6

3.3.1 LOCAL AND REGIONAL CONSERVATION PLANNING

BIDWELL-SACRAMENTO RIVER STATE PARK GENERAL PLAN

The General Plan and EIR (Park Plan) for the Bidwell-Sacramento River State Park were completed in 2006, and reflects State Parks' dual mandates as the steward of sensitive ecological resources and the provider of recreation opportunities (State Parks 2003, 2006). As described in Section 1.3 of this DEIR, the proposed project is consistent with and implements a wide range of Park Plan goals. The protection and restoration of natural and cultural resources are key components of the Park Plan. The Park Plan allows for additional biological habitat restoration and water quality protection; preserves scenic and cultural resources; and calls for facility developments and improvements in response to local and regional demand, yet with consideration given to physical and environmental constraints.

The Park Plan also addresses key planning issues that have been identified during the planning process. These issues include definition of a purpose and vision for the Park; resource protection and management; recreational opportunity/visitor service enhancement; interpretation; facility development; operational improvements; and property acquisition/park expansion. The following list summarizes potential facilities and developments identified in the Park Plan that are relevant to proposed project and this EIR:

- ▶ New overnight campground, including family and group campsites.
- ▶ New day-use areas.
- ▶ Ongoing operation and use of existing day-use areas.
- ▶ Relocation of existing administrative center to a more centralized location.
- ▶ New day-use area at the location of the existing administrative center.
- ▶ New visitor center that could serve multiple public land managers.
- ▶ Potential for new multi-agency loop trails and associated trailheads.

SACRAMENTO RIVER CONSERVATION AREA

In 1986, the California State Legislature passed Senate Bill 1086, which calls for the development of a management plan for the Sacramento River and its tributaries to protect, restore, and enhance fisheries and riparian habitat. The result of this effort was the Upper Sacramento River Fisheries and Riparian Habitat Management Plan published by the State of California Resources Agency in 1989. This management plan addresses a 222-mile stretch of the Sacramento River from Keswick Dam (in the north) to Verona (in the south), which is called the SRCA. The goal of the SRCA is to "preserve remaining riparian habitat and reestablish a continuous riparian ecosystem along the Sacramento River between Redding and Chico and reestablish riparian vegetation along the river from Chico to Verona." The Sacramento River Conservation Area Forum (SRCAF) is a group of local, state, federal, and private organizations that help implement the actions necessary to achieve the goal of the SRCA. The guiding principals for the SRCA include: ecosystem management, flood management, voluntary participation, local concerns, bank protection, and information and education. The project site is located within the SRCA; therefore, planning for the project needs to consider the management strategies developed for the SRCA.

TNC, in conjunction with the USFWS, the California Wildlife Conservation Board, and DFG, commissioned a study conducted in 2003 to assess existing and potential public recreation uses, access needs, and opportunities along a 100-mile stretch of the Sacramento River between Red Bluff and Colusa. The goals of the Sacramento River Public Recreation Access Study (EDAW 2003) were: (1) to identify and characterize existing public access opportunities and needs associated with public recreation facilities and infrastructure throughout the study area, and (2) to identify and make recommendations for future public recreation access opportunities and management programs in the study area.

The results of the 2003 study and previous studies indicated substantial public interest in natural areas. Potentially attractive recreation uses along the Sacramento River include trail hiking, walking, hunting and fishing, camping, wildlife viewing, nature study, picnicking, boating, beach activities, attending outdoor cultural events, and visiting museums and historic sites. Regional trends indicate a continued interest in the traditional outdoor recreation activities of boating, fishing, and hunting. Additionally, other nature observation activities, such as bird watching and wildlife viewing, are expected to increase 65% over the next 40 years.

SACRAMENTO WILDLIFE AREA MANAGEMENT PLAN

A Comprehensive Management Plan (DFG February 2004) was prepared for the Sacramento River Wildlife Area, portions of which are located near the project site, particularly the Nicolaus property. The management plan, which updated DFG's management strategy for the Wildlife Area, involved a detailed inventory and analysis of the 13 Wildlife Area units, extensive public outreach, and coordination with other management agencies active in the plan area, including State Parks. The management plan also specified that there would be no substantial changes in land use at the Wildlife Area and that no new facilities are planned. The wildlife area would continue to be focused on conservation, allowing appropriate outdoor recreational opportunities, including hunting, fishing, hiking, wildlife observation, environmental education, and nature interpretation. The Sacramento River Wildlife Area is currently open to the public and recreation use is a major component of the management plan.

USFWS COMPREHENSIVE CONSERVATION PLAN

A portion of the USFWS Sacramento River National Wildlife Refuge (SRNWR) is located in proximity to the project site, between the Irvine Finch and Pine Creek Landing subunits of BSRSP. A Comprehensive Conservation Plan (CCP) for the SRNWR was completed in July 2005 (USFWS). The CCP guides management of the SRNWR for the next 15 years. The SRNWR's mission is to preserve, restore, and enhance riparian habitat for threatened and endangered species, and other wildlife and vegetation. Compatible recreation opportunities in the SRNWR identified in the CCP include hunting, fishing, hiking, wildlife observation, environmental education, and nature interpretation.

3.3.2 LOCAL GENERAL PLANS AND BICYCLE PLANS

BUTTE COUNTY GENERAL PLAN

The project site is located in unincorporated portions of Butte County. The Butte County General Plan designation in the project vicinity is OFC – orchard and field crops, 5–40 acres, and the zoning for the project site is A-160, which is agriculture with a minimum parcel size of 160 acres. Non-agricultural uses allowed with this zoning designation include seasonal hunting and fishing camps and recreational uses not requiring permanent improvements. The Butte County General Plan is currently applicable to the Nicolaus property. The Singh Unit is owned by the State. While the State is not bound by local general plan and zoning designations, State Parks seeks to maintain good coordination with the County about land uses on State property. Once transferred to State Parks' ownership, the Nicolaus property will no longer be subject to the Butte County General Plan.

The Butte County General Plan was adopted over a period of several years, from 1971 to 1995. In 2005, Butte County produced the Butte County General Plan Technical Update (GPTU) Background Report, which inventoried and analyzed existing conditions and trends in Butte County, providing formal supporting documentation for General Plan policy. Elements in the General Plan that are most applicable to the Nicolaus property include Land Use, Conservation, Open Space, Recreation, and Agriculture. The General Plan Land Use Element contains goals and policies for recreation facilities, open space, scenic areas, biological habitat, natural areas, archaeological resources, and flood hazards. The Conservation Element includes a discussion of flood control, soils and soil erosion, wildlife and fisheries. The Open Space Element addresses agricultural lands, timber land, water resource areas, wildlife habitat, and open space for outdoor recreation. In addition, the County Board of Supervisors directed the preparation of a separate Agricultural Element in 1994 to protect and maintain

agriculture as a major part of the local economy and way of life. The Agricultural Element establishes policies designed to preserve agricultural lands, strengthen and support the agricultural sector of the economy, protect the natural resources that sustain agriculture, and consolidate agricultural policies required in mandated general plan elements. The County is currently in the process of preparing a comprehensive update to the general plan to be completed in 2009.

BUTTE COUNTY BIKEWAY MASTER PLAN

The Butte County Area Governments, in coordination with the Butte County Public Works Department, prepared a Bikeway Master Plan for Butte County, which was adopted in 1998. This document focuses on countywide bikeway connections, and incorporates the proposed bike plans for each of the cities within the county. In the vicinity of the project site, the Bikeway Master Plan identified the need for Class II bike lanes on River Road from Ord Ferry Road to SR 32 and on SR 32 to the county line (medium funding priority). Class II bike lanes provide for a restricted right-of-way designated for the exclusive or semi-exclusive use of bicycles with through travel by motor vehicles or pedestrians prohibited, but with vehicle parking and crossflows by pedestrians and motorists permitted. Caltrans standards generally require a 4-foot (1.2-meter) bike lane with a 6-inch (150-mm) white stripe separating the roadway from the bike lane. Although River Road and SR 32 are used by bicyclists, bike lanes have not yet been developed and no funding has been identified for the proposed lanes. The County is scheduled to update the Bikeway Master Plan in 2007.

3.4 PROPOSED PROJECT CHARACTERISTICS

3.4.1 HABITAT RESTORATION

The proposed project would involve the removal of human made berms (Exhibit 3-7) on the Singh Unit and grading to match the natural topography. The proposed project would involve revegetation and restoration of the Singh and Nicolaus parcels with native riparian communities such as cottonwood riparian forest, valley oak savannah, valley oak forest, mixed riparian forest, native grassland, and valley oak riparian forest habitats as described in *Nicolaus Property Riparian Habitat Restoration Plan, Sacramento River (RM 195)* (TNC 2007-a) and *Singh Unit Riparian Restoration Plan – Bidwell Sacramento River State Park, Sacramento River (RM 194)* (TNC 2007-b) (Appendix C). These plans were prepared based on approximately 17 years of adaptive management practices conducted by TNC on approximately 4,600 acres within the middle reaches of the Sacramento River as well as the *Flood Neutral Hydraulic Analysis for the Nicolaus and Singh Properties, Sacramento River RM 194–195*, dated December 2007 (Appendix B). Exhibits 3-7 and 3-8 depict the proposed plan for the habitat restoration communities, and Table 3-2 summarizes the proposed acreages of habitat community types to be restored.

Table 3-2 Preliminary Target Acreages by Community Type and Property			
	Singh Unit	Nicolaus Property	Total Acres
Cottonwood riparian forest	5.0	19.4	24.4
Valley oak forest	0	34.5	34.5
Mixed riparian forest	6.1	15.3	21.4
Valley oak riparian forest	18.9	36.2	55.1
Grassland buffer	3.3	8.9	12.2
Flowthrough Meadow	2.6	0	2.6
Facilities Footprint (valley oak savanna)	0	21	21
Total Acres	35.9	135.3	171.2
Source: The Nature Conservancy 2007			

To accomplish this restoration, native species would be propagated, planted, and actively maintained for a period of 3 years following the initial planting. Over time, habitat management and natural processes would control the species composition and overall structure of the plant communities. The restoration work on the ground would occur after the project has been approved, permits are obtained, and restoration funds are secured. All restoration activities would comply with the noise control measures required by the Butte County Planning Department for construction-related noise. Proposed project activities for habitat restoration would include:

- ▶ Selection and propagation of native plants;
- ▶ Project site preparation, including orchard removal, debris removal, discing, grading, and removal of nonnative invasive plant species (including eucalyptus);
- ▶ Irrigation system design and installation;
- ▶ Planting of propagated container stock and direct seeding of grasses;
- ▶ Maintenance, including irrigation, plant replacement, and weed control; and,
- ▶ Monitoring and reporting.

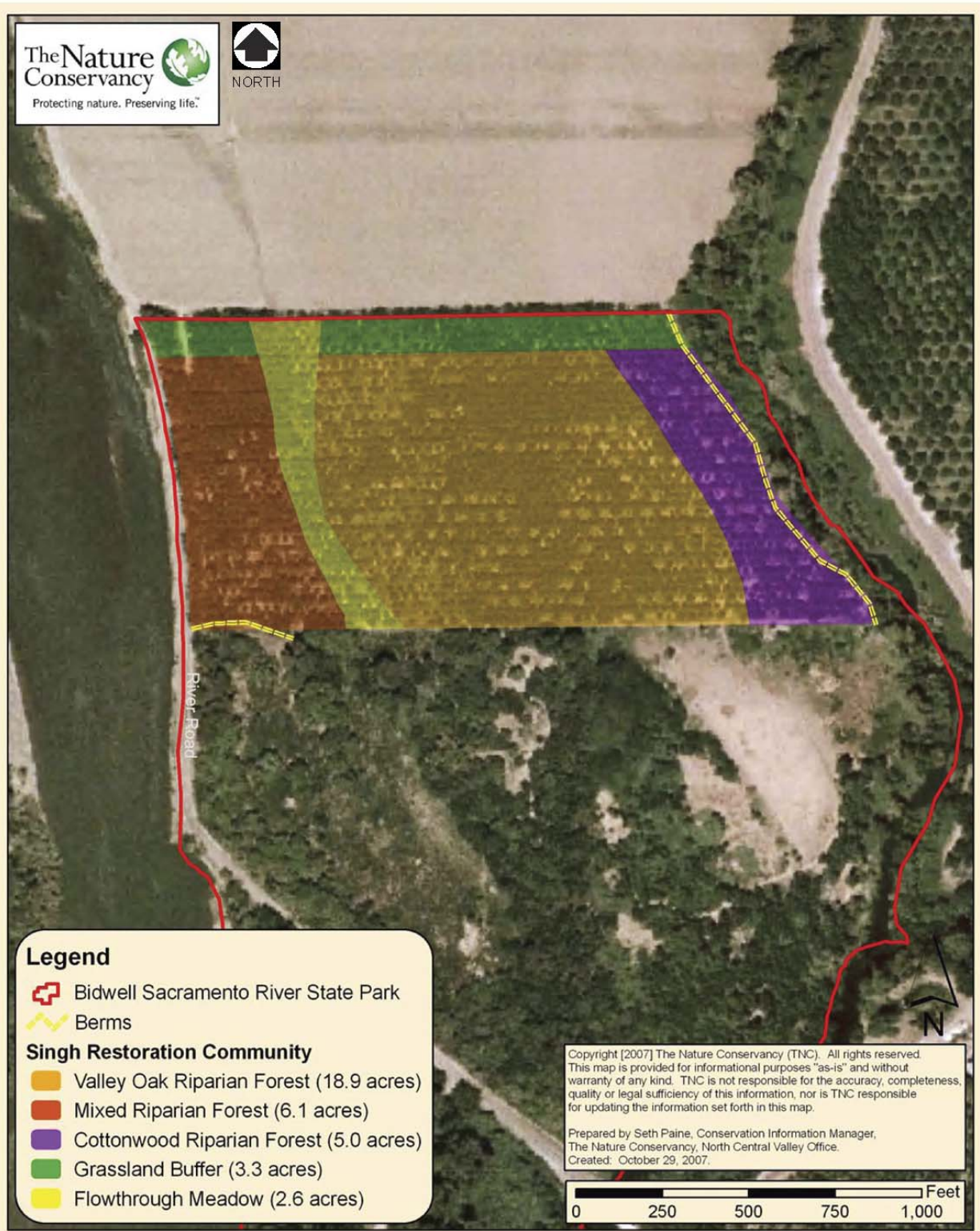
Analysis of the proposed habitat restoration project activities is based on the detailed information as described in the restoration plans. Please refer to Appendix C for a more detailed description of specific approaches and prescriptions for restoration activities.

3.4.2 PUBLIC ACCESS AND RECREATION FACILITIES

In addition to the restoration and revegetation of the Singh and Nicolaus parcels, the proposed project would also include the development of public access and outdoor recreation facilities as part of the BSRSP (Exhibit 3-9). The public access and recreation facilities would not be developed until ownership of the Nicolaus property is transferred from TNC to State Parks, and funding for detailed planning, design, and construction are secured. The Singh and Nicolaus Public Access and Recreation Concept Plan (TNC 2007) (Appendix D), would guide further planning, design, and development of outdoor recreation facilities. It incorporates trails, day-use areas, and overnight camping facilities into the areas to be restored on the Singh and Nicolaus parcels, and modifies existing Park day-use facilities on the west side of River Road. Day-use facilities would include parking areas, trails and trailheads, picnic areas, restrooms, and educational and interpretive features. Overnight camping facilities would include an entry plaza; recreational vehicle (RV), tent, and group camping sites; restrooms; showers; dump station; and parking. State Parks would hire one additional staff person to support these new facilities.

RELOCATION OF BSRSP HEADQUARTERS

The proposed project would relocate the Park headquarters (i.e., administrative facilities) from its current location west of River Road to the existing farm complex on the Nicolaus property. The buildings, fencing, and equipment would be removed from the current headquarters location and the site would be modified to accommodate day-use activities as described in the BSRSP General Plan (State Parks 2003). The new Park headquarters on the Nicolaus property would utilize the existing farm buildings on the site. The two existing barns would potentially be used for maintenance equipment storage; the farmhouse and two other existing buildings would be converted or replaced and used for offices for permanent and seasonal Park staff, including rangers and maintenance staff. The converted or replaced farmhouse would also be used as the visitor contact station and would be accessible per the Americans with Disabilities Act (ADA). Any conversion of the farm buildings would include maintaining and enhancing the aesthetic ranch-character of the buildings. The maintenance yard would be fenced and paved with aggregate base course (ABC). The new Park headquarters would include a new 24-foot-wide entrance road and parking area that could accommodate 10 oversized vehicles, such as RVs and vehicles with trailers up to 65 feet

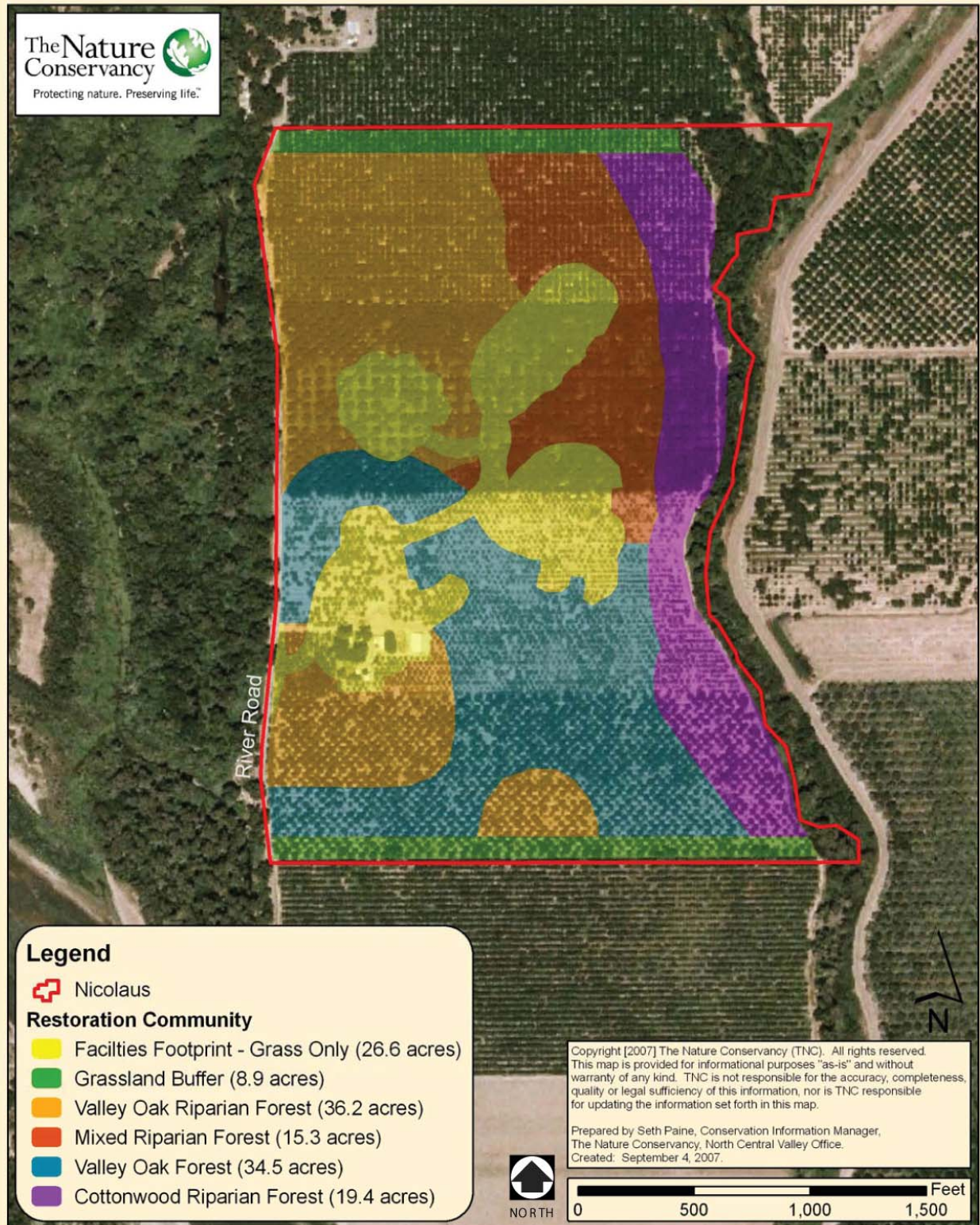


© 06110026.01 003

Source: The Nature Conservancy 2007

Singh Unit Restoration Communities

Exhibit 3-7



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Source: The Nature Conservancy 2007

Nicolaus Property Restoration Communities

Exhibit 3-8

total length, and 15 regular vehicles (including 3 ADA-accessible spaces); a bus turn-around area; a separate new maintenance and ranger entrance and parking area; a restroom and shower building for use by campers; and an environmental education area with amphitheater and interpretive features.

RECREATIONAL DAY-USE FACILITIES

Recreational day-use facilities would be developed on the Singh Unit and Nicolaus property. Additional facilities would be developed on adjacent Park property. The existing headquarters, on Park property west of River Road, would be developed into a day-use area that would include an ABC paved parking area that accommodates five oversized vehicles and 12 regular vehicles (2 ADA accessible spaces); restroom facilities; group picnic area with three picnic tables; seven picnic tables on concrete pads; trailhead signage; and trails connecting to other Park facilities. Development of the existing headquarters to a day-use facility was analyzed in the EIR for the BSRSP General Plan (State Parks 2003); therefore, it is not included as part of this project.

A second day-use facility would be developed by modifying an existing day-use area approximately 0.5 mile south of the existing headquarters on the west side of River Road. This day-use area is located near the new Park headquarters site on the Nicolaus property. Modifications proposed at the existing day-use area would include an aggregate parking area that could accommodate 8 standard vehicles (including one ADA-accessible space); three picnic tables on concrete pads; and informational signage. Modification and maintenance of existing Park facilities was analyzed in the EIR for the BSRSP Preliminary General Plan (State Parks 2003); therefore, modification of the existing day-use area south of the existing headquarters is not included as part of this project.

The new Park headquarters would offer limited day-use facilities including: parking; visitor contact station and informational signage; environmental education and interpretive facilities, including an open-air amphitheater; a loop trail, and trail connections to other day-use areas.

OVERNIGHT CAMPSITES

Four types of overnight camping facilities would be developed on the Nicolaus property, including: RV camping, vehicle camping, walk-in tent camping, and group camping. Camping facilities would be accessed via the headquarters entrance road. Each type of camping facility would have its own driving loop to access the individual campsites with the exception of the walk-in tent campground which would use the vehicle campground loop. All campsites would share the use of the shower facility. The four camping facility types are described below.

RV Campground

The RV campground would include 25 RV campsites, including four pull-through sites and 21 back-in sites. Each RV spur would include one 8-foot picnic table, one fire ring and grate, one electrical pedestal, and potable water hookups. The RV campground would contain two restroom facilities and one garbage dumpster.

Vehicle Campground

The vehicle campground would include 15 vehicle campsites, including eight back-in tent sites and seven pull-out tent sites. Each vehicle spur would include one 8-foot picnic table and one fire ring and grate. Campsites would share a potable water station with neighboring campsites. The vehicle campground would contain two restroom facilities and one garbage dumpster.

Walk-in Tent Campground

The walk-in campground would include 10 tent sites accessed via trail. Each tent site would have three parking spaces available at the parking area on the vehicle campground loop. Each tent site would include one 8-foot picnic table and one fire ring and grate. Two potable water stations would be provided for use by walk-in tent

sites. The walk-in campground would share the two restroom facilities and one garbage dumpster with the vehicle campground.

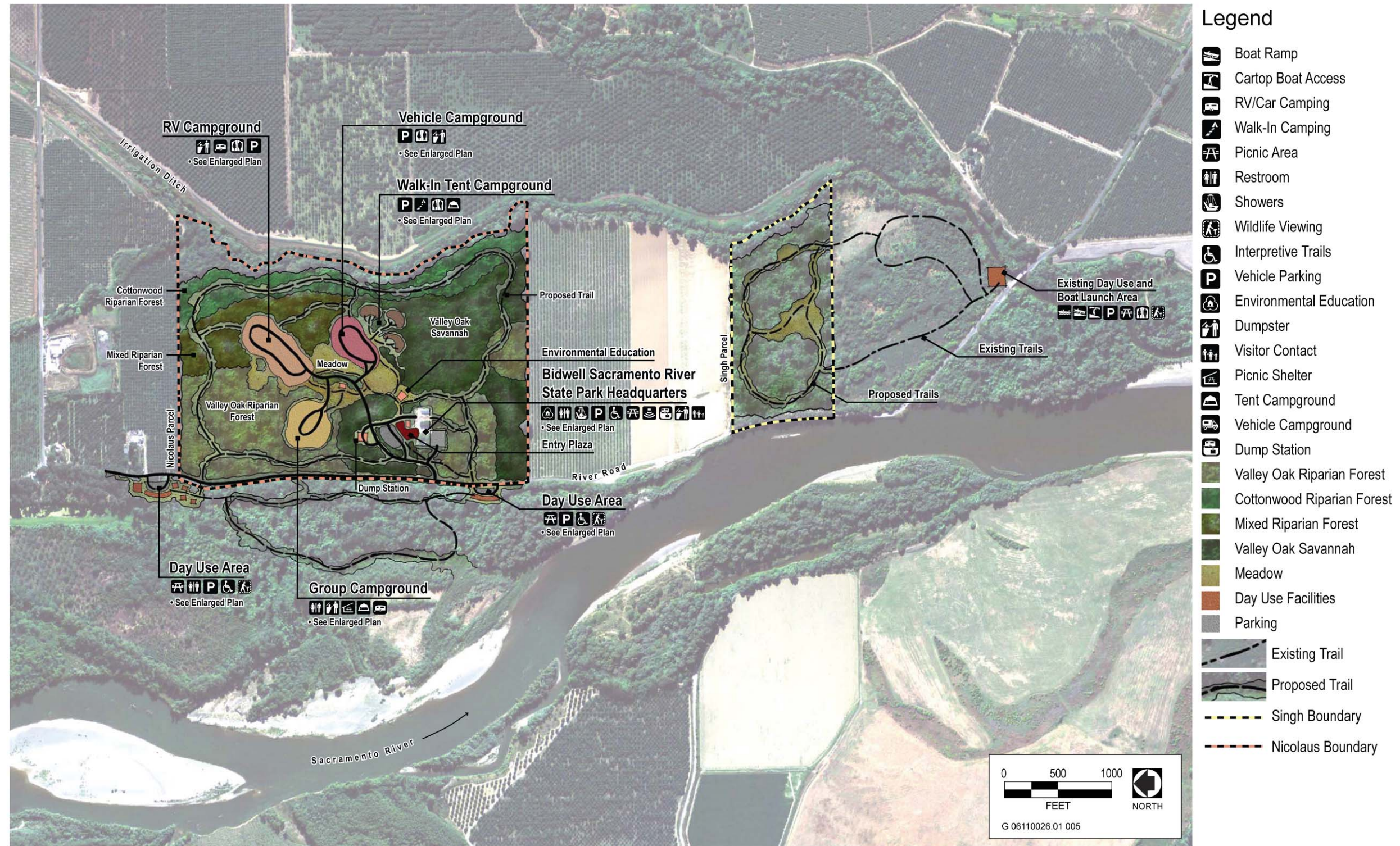
Group Campground

The group campground would include six back-in RV sites, 6 RV pull-through buddy spurs, seven group tent camping pods, and four group picnic shelters (44 feet by 22 feet). Each group picnic shelter would include four picnic tables and a fire ring and grate. RV sites and buddy spurs would include an electrical pedestal, and potable water hookups. The group campground would contain two restroom facilities with potable water stations and one garbage dumpster. The group campground would also include a group fire ring with seating for up to 20 people.

PUBLIC ACCESS AND OUTDOOR RECREATION SPECIFICATIONS

Public access and recreation facilities would be designed and developed consistent with goals and guidelines in the BSRSP General Plan and EIR (State Parks 2003), and would follow current State Parks design standards. In addition, all construction activities would comply with the noise control measures required by the Butte County Planning Department for construction-related noise.

- ▶ **Accessibility Guidelines:** Facilities would be designed to conform to ADA guidelines and California Division of the State Architect (DSA) Accessibility Standards.
- ▶ **Restrooms:** A total of seven restroom facilities would be built. Restrooms would be pre-manufactured vault toilets suitable for occasional flooding, which could be pumped and sealed, placed on a raised pad. Architectural character to be consistent with similar facilities at other subunits with the Park.
- ▶ **Combination Restroom/Shower Building:** One combination restroom/shower building would be built. The combination restroom/shower building would be a pre-manufactured or site built building placed on a raised pad. The building would include a dish washing station. Architectural character to be consistent with similar facilities at other subunits with the Park.
- ▶ **Group Shelters:** A total of four group shelters would be built. Pre-manufactured picnic shelters would be placed on a raised pad. Typical dimensions would be 44 feet by 22 feet. Architectural character to be consistent with similar facilities at other subunits with the Park.
- ▶ **Roads:** Approximately 1 mile of interior road would be built. Roads would be up to 24 feet wide (two way traffic) and up to 16 feet wide (one way traffic), with a one foot ABC shoulder. Pavement would be asphalt, concrete or ABC. The Park Plan calls for minimal use of asphalt or concrete for the campground facilities. ABC would be the preferred road surface treatment. Road grades would be elevated to maintain accessibility during flooding.
- ▶ **Parking Spaces:** Standard parking spaces would be 10 feet by 20 feet. Oversized parking spaces would be 12 feet by 65 feet. Accessible parking spaces would conform to ADA Accessibility Guidelines and California DSA Accessibility Standards.
- ▶ **Trails:** Approximately 2 miles of trails would be built. Trails would be up to 8 feet wide. Trail surface would primarily be ABC and native soil, and possibly in some cases concrete or asphalt.
- ▶ **Garbage Dumpsters:** A total of four garbage dumpsters would be located within the overnight, day-use, and headquarter areas. Garbage dumpsters would be animal proof. Animal-proof waste and recycling containers would be placed throughout the Park. Garbage collection would be by contract.



Source: EDAW 2007

Singh and Nicolaus Conceptual Public Access and Restoration Plan

Exhibit 3-9

- ▶ **Water:** Existing on-site wells would provide potable water for the campground, day-use facilities, and Park headquarters. An on-site water treatment facility would be installed to maintain acceptable water quality levels.
- ▶ **Wastewater:** The facilities at the farm complex are above normal flood stage and the existing septic system/leachfield would be used to service the relocated Park headquarters. A new septic system/leachfield would be installed to service the combination restroom/shower building (in an area where annual flooding is not anticipated). Vault toilets and RV dump station could be sealed when necessary and would be pumped by a local contractor.
- ▶ **Drainage:** Recreational facilities would be designed to allow natural drainage on the project site, similar to existing conditions. Stormwater drainage would be transported in grass-lined swales and overland flow. The recreational facilities would be designed to minimize the use of impervious surfaces.

FIRE PROTECTION

The Butte County Fire Department contracts with the California Department of Forestry and Fire Protection (CDF) to administer fire prevention and suppression in Butte County. The program includes full-time firefighters as well as a capably-trained contingent of volunteers who respond to every type of emergency. The CDF Butte County Unit, Station #43 is located in west Chico at 2544 SR 32 and would likely be the first to respond to a call for fire prevention or protection at the project site.

Implementation of Park Plan Goal AO-2.3 and Guidelines AO-2.3.1 and AO-2.3.2 would facilitate monitoring and patrolling of the Park, which would provide the opportunity to respond to potential causes of wildfire (e.g., illegal fires). In addition, Park Plan Guideline AO-3.3-2 would restrict the use of campfires, further minimizing potential wildfire ignition, and Park Plan Guideline VU-3.7-4 would ensure the provision of information to visitors on Park rules regarding fire safety. Given these goals and guidelines, the increase in the risk of wildland fire is not expected to be substantial. Further, all facilities would be designed in compliance with the California Building Code, which requires fire safety features.

LAW ENFORCEMENT

Law enforcement services are provided concurrently by State Parks and local law enforcement agencies, namely Butte County Sheriff Department for the portion of BSRSP in Butte County. Park security is the primary responsibility of the Park Ranger serving the Park. Additionally, consistent with the Park Plan Goal AO-4.4, State Parks will work with private landowners in proximity to BSRSP to minimize conflicts associated with the mixed public and private land ownership in the area.